

**REMARKS/ARGUMENTS**

The office action of April 16, 2004 has been carefully reviewed and these remarks are responsive thereto. Reconsideration and allowance of the instant application are respectfully requested. Claims 1-15, 18-21 remain in this application. Claims 16-17 have been canceled. Claims 9, 10, 13, and 20 have been amended in order to correct typographical errors. Claim 18 has been amended into independent form. Claim 21 has been added.

**Amendments to Specification**

The office action stated that the title of the invention was not descriptive. Applicant has amended the title in accordance with the Examiner's suggestion. In addition, Applicant has amended the specification in order to correct typographical errors. No new matter has been added.

**Claim Rejections – 35 U.S.C. § 102**

Claims 1, 3-16, and 18-20 stand rejected under 35 U.S.C. § 102(e) as being anticipated by *Barany et al.*, Pub. No. U.S. 2003/0189900A1 (*Barany '900*). Claim 16 has been canceled, thereby rendering its rejection as moot.

The filing date accorded to the published application is May 4, 2001, more than four months after the filing of the present application. The office action appears to rely on the May 26, 2000 filing date of Barany's related provisional application No. 60/207,622 (hereinafter "the provisional application") to qualify it as prior art under section 102(e). Thus, in order to anticipate the claims of the present application, any subject matter in the *Barany '900* published application cited must be fully supported (i.e. disclosed) in the provisional application. Applicant submits that the provisional application fails to provide support for substantial material cited in the office action. As a result, portions of the subject matter relied upon in the *Barany 900* published application are not prior art, and therefore do not preclude patentability under 35 U.S.C. § 102(e).

Claim 1 recites in relevant part:

assigning, by the ingress GSN, a label to at least a portion of the data according to the traffic class to provide labeled data; and  
routing, by the ingress GSN to an egress GSN of the plurality of GSNs, the labeled data through a first delay-differentiated path of the plurality of delay-differentiated paths based on correspondence of the label to the first delay-differentiated path.

The office action alleges that *Barany '900* discloses “assigning, by the ingress GSN, a label to at least a portion of the data according to the traffic class” at page 4-5, ¶¶ 43-47 in the published application. The office action further contends that “provid[ing] labeled data” is shown at page 6, ¶¶ 61-62 where “each traffic class is metered and marked/label [sic] by the appropriate PHB to form/provide PHB label/level packet.”

Applicant submits that the *provisional application* does not disclose, teach or suggest “assigning, by the ingress GSN, a label to at least a portion of the data according to the traffic class to provide labeled data” as recited in claim 1. The provisional application at most shows that a mobile station or landline PC telephone can set a DiffServ DS field based on QoS requirements (see provisional application at p. 4). That is not what is recited in the claim. As a result, because the provisional application does not support the subject matter relied upon in the *Barany '900* published application, the subject matter is not prior art, and the rejection should be withdrawn. Claims 2-9 depend from claim 1 and are also allowable for substantially the same reasons, and further in view of additional reasons discussed below.

Claim 7 recites:

The method of claim 6, wherein each of the plurality of traffic classes has a unique correspondence to one of a plurality of per-hop behavior (PHB) groups, further comprising a step of:

assigning, by the ingress GSN, a PHB group of the plurality of PHB groups to the labeled data based on the traffic class,

wherein the step of handling further comprises handling the labeled data according to the per-hop behavior group assigned to the labeled data.

The office action alleges that *Barany '900* shows each feature of claim 7. Applicant submits that the provisional application fails to teach or disclose a method “wherein each of the plurality of traffic classes has a unique correspondence to one of a plurality of per-hop behavior (PHB) groups” as recited in the claim. The provisional application does show PHB groups, but it does

not teach or suggest “a plurality of traffic classes ha[ving] a unique correspondence to one of a plurality of [PHB] groups” as recited in the claim. Moreover, the provisional application fails to teach or suggest “assigning, by the ingress GSN, a PHB group . . . based on the traffic class” as recited in claim 7. The provisional application shows only setting a DS Field by a mobile station or landline PC telephone. Accordingly, claim 7 is allowable for this additional reason.

Claim 8 recites:

wherein the plurality of traffic classes comprises conversational, streaming, interactive and background traffic classes, and wherein the conversational class corresponds to an Expedited Forwarding PHB group, the streaming class corresponds to a First Assured Forwarding (AF1) PHB group, the interactive class corresponds to a Second Assured Forwarding (AF2) PHB group and the background class corresponds to a Third Assured Forwarding (AF3) PHB group.

Applicant submits that the provisional application fails to provide any reference to an “Expedited Forwarding PHB group,” a “First Assured Forwarding PHB group,” a “Second Assured Forwarding (AF2) PHB group,” or a “Third Assured Forwarding (AF3) PHB group” as recited in claim 8. In fact, the provisional application makes no reference whatsoever to any type of “Forwarding PHB group” as recited in claim 8. Accordingly, claim 8 is allowable for at least this additional reason.

Claim 10 recites in relevant part:

assigning, by the ingress GSN, a per-hop behavior (PHB) group of a plurality of PHB groups to the data based on the traffic class,  
transmitting, by the ingress GSN, a portion of the data to one of the plurality of intermediate nodes; and  
handling, by the one of the plurality of intermediate nodes, the portion of the data based on the PHB group

The office action alleges that the Barany published application shows “assigning, by the ingress GSN, a per-hop behavior (PHB) group of a plurality of PHB groups to the data based on the traffic class” at pages 4-5 ¶¶ 43 and 47, and at page 6, ¶¶ 61-62. Like before, the provisional application upon which the rejection relies does not provide any disclosure or support for this subject matter. Although the provisional application shows PHB groups, it does not teach or otherwise suggest “assigning, by the ingress GSN, a per-hop behavior (PHB) group to the data

based on the traffic class" as recited in claim 10. More specifically, the provisional application fails to disclose that PHB groups are based on a traffic class, and it also fails to show that PHB groups are assigned by an ingress GSN.

Because the provisional application does not support the subject matter relied upon in the *Barany '900* published application, the subject matter is not prior art, and the rejection of claim 10 should be withdrawn. Claims 11-15 depend from claim 10 and are also allowable for substantially the same reasons, and further in view of additional reasons provided below.

Claim 12 recites:

The method of claim 10, wherein the plurality of traffic classes comprises conversational, streaming, interactive and background traffic classes, and wherein the conversational class corresponds to an Expedited Forwarding PHB group, the streaming class corresponds to a First Assured Forwarding (AF1) PHB group, the interactive class corresponds to a Second Assured Forwarding (AF2) PHB group and the background class corresponds to a Third Assured Forwarding (AF3) PHB group.

Applicant submits that claim 12 is allowable for substantially similar reasons as discussed in connection with claim 8 above.

Claim 18, as amended, recites:

An improved General Packet Radio Service (GPRS) network of the type comprising a plurality of GPRS Support Nodes (GSNs) in communication with each other via an Internet Protocol (IP)-based network comprising a plurality of intermediate nodes, wherein the improved GPRS network is capable of supporting a plurality of traffic classes, the improvement comprising:

at least one Serving GPRS Support Node (SGSN) and at least one Gateway GPRS Support Node (GGSN) having a plurality of delay-differentiated paths within the IP-based network between each of the at least one SGSN and each of the at least one GGSN, wherein each of the plurality of traffic classes has at least one delay-differentiated path of the plurality of delay-differentiated paths corresponding thereto, wherein each of the at least one SGSN and each of the at least one GGSN further function to assign a per-hop behavior (PHB) group of a plurality of PHB groups to data belonging to a traffic class of the plurality of traffic classes, wherein the intermediate nodes handle the data according to the PHB group.

Applicant submits that claim 18 is allowable over the cited references because the provisional application fails to teach or otherwise suggest “at least one SGSN ... assign[ing] a per-hop behavior (PHB) group” as recited in the claim. The provisional application does not teach or otherwise disclose what, if anything, assigns a PHB Group to data. Therefore, it cannot anticipate claim 18. Accordingly, claim 18 is allowable, and Applicant requests that the rejection be withdrawn. Claims 19 and 20 depend from claim 18 and are also allowable for substantially the same reasons.

**Claim Rejections – 35 U.S.C. § 103**

Claims 2 and 17 stand rejected as being unpatentable over *Barany '900* in view of *Gibson*, U.S. Pat. No. 6,680,943 (“*Gibson*”). Claim 17 has been canceled, thereby rendering the rejection as moot. With respect to claim 2, Applicant submits that this claim is allowable for substantially the same reasons discussed in connection with claim 1 above.

## **CONCLUSION**

It is believed that no fee is required for this submission. If any fees are required or if an overpayment is made, the Commissioner is authorized to debit or credit our Deposit Account No. 19-0733 accordingly.

All rejections having been addressed, Applicants respectfully submit that the instant application is in condition for allowance, and respectfully solicits prompt notification of the same.

Respectfully submitted,

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